

32. The system for ciphering data as claimed in claim 31, wherein said data received at said first communications port comprises fragments of a packet, said data processing processor stores said fragments in said memory buffer to assemble said packet and said ciphering processor generates said ciphered data from said assembled packet.

33. The system for ciphering data as claimed in claim 32, wherein said system is disposed at a gateway between a private network and a public network in a secure virtual private network, said first communications port is connected to one of said private network and said public network and said second communications port is connected to another one of said private network and said public network.

**IN THE ABSTRACT**

*Please replace the paragraph of the Abstract of the Disclosure with the following paragraph:*

A system for ciphering data for transmission by a communication device is provided. The system includes a memory device having a memory buffer a first access port connected to the memory buffer and a second access port connected to the memory buffer. The system also has a data processing processor connected to the first access port via a first bus and a ciphering processor connected to the second access port via a second bus. The first access port and the second access port each provide mutually independent access to the memory buffer. The second bus is not connected to the first bus. The data processing processor is adapted to receive the data and provide the data to the memory buffer over the first bus. The ciphering processor is adapted to retrieve the data from the memory buffer over the second bus, generate ciphered data from the data, generate integrity check information for the ciphered data using the data and provide the ciphered data to the memory buffer over the second bus.